RESEARCH AND DEVELOPMENT, NEUCHATEL - QUARTERLY REPORT

DIVISION : RESEARCH

SUBJECT TITLE : ANALYTICAL INVESTIGATIONS

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PACKAGING ANALYSIS

Raffles trials in Malta with an offset-printed display carton produced severe distorsion of the pack wrapping film. The cigarettes had a chemical off-taste. Analysis of the cigarette filters and the display carton demonstrated migration of printing volatiles from the display carton to the filters. Replacement of the polypropylene wrapping film by cellophane only delayed the onset of swelling. The use of a disperse varnish or helio printing was recommended (PHM/GLA) [1,2,3,4].

MLF HL blanks produced by Interdruck for Dresden were returned because a black dust covered the pallets. No difference was detected by closed loop stripping analysis (CLSA) between center pallet samples and previous samples from the same supplier (PHM/GLA) [5,6].

A deposit was found on a packing machine in Bergen-op-Zoom. Analysis of the deposit and of the labels used on the machine showed the deposit was a highly cristalline polyethylene. Abrasion of a machine part was suggested as the cause of the problem (PHM) [7,8].

Two Magnoprint paper samples were submitted for analysis. CLSA showed the presence of styrene and phenylcyclohexene. The samples were rejected and the supplier informed about the cause (GLA/PHM) [9,10,11].

Tests were carried out at Rentsch to determine if special aeration cutouts were still necessary in the cardboard sheets which separate each pallet layer of HL blanks. Analysis showed no difference between HL blanks palleted with plain and with cutout separation sheets. Approval of the plain sheets was recommended (GLA) [12,13].

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Raffles UK display cartons and cigarettes were analysed. Results confirmed the Malta tests. Volatile migration from the offset display carton to the cigarettes was again demonstrated (GLA) [14].

An unprinted display carton Kopparwhite ex Algeria was analysed and compared with previous deliveries. The carton showed some differences with the Iggesund standard. Panel evaluation was recommended prior to approval (GLA/PHM) [15,16].

CAMEL TASTE

The smoking panel found a subjective improvement in taste in Camel DB. No chemical differences were detected by CLSA and GC-MS (GLA/PHM) [17,18].

PACKING CONTAINERS

Containers proposed for bale packing were analysed. The containers were made of polypropylene which is not allowed for tobacco contact by PM-US. Rejection was recommended (PHM) [19,20].

MICHELMAN COATED PAPER

Growers in Zimbabwe want to use an acrylic coated paper instead of the traditional tar paper for bale wrapping. As this coating is used by PM-US on cardboard export cases for BBS, approval was recommended (MUM) [21,22].

BOILER DEPOSIT

Analysis of a hard black material found in the heaters at Onnens showed it was a bitumen type combustion residue. Metal corrosion was excluded as the cause (MUM) [23,24].

NICONET

A rod-like device (Niconet T88) filled with a solid absorbent, claimed to reduce the nicotine content of cigarettes when placed

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in the packet, was received. Analysis showed the absorbent to be a silicate mineral. No nicotine reducing activity was detected (MUM) [25,26].

PUFF BY PUFF SMOKING

At the request of Product Development a group was established to perform "puff by puff" smoke analyses. The tasks of this group are :

- To establish and/or improve procedures for "puff by puff" DPM, CO and SN determinations;
- To provide fast response to Product Development requests.

Ten samples for projects AMOUR, VOLGA and PPPP were analysed for DPM with 3 different puff volumes (35, 50 and 70 ml) [27]. The methods for CO and SN are tested. Development is under way to improve the DPM and SN methods to get consistent values with "puff by puff" and ISO smoking (JMR).

CF ANALYSES

At the request of PM-EEC, 9 Camel samples from the EEC region as well as 2 samples from Switzerland were analysed for CF. CF was found only in Camel 79/F and 84/F from Switzerland as expected from the Swiss market survey (JMR) [28].

At the request of QA, Winston 84/F (Algeria) and Casablanca (Switzerland) were analysed for CF. No CF was detected in any brand (JMR) [29][30].

In the context of the Swiss Camel survey, Camel 84/F was analysed for CF : 29 ppm of CF were detected (JMR) [31].

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